tion of 4,531 deaths from IPD and 34,648 deaths from hospitalized pneumonia over 10 years. Compared to no vaccination, PCV13 vaccination would be cost-effective at RM21,998 per QALY gained from the societal perspective. Compared to PCV10, PCV13 vaccination would avoid an additional 9,651 cases of IPD, 392,684 and 980,434 cases of hospitalized and non-hospitalized pneumonia respectively, and 81,118 cases of AOM with the prevention of 18,736 deaths. Compared to PCV10, PCV13 vaccination would be cost-effective at RM6,315 per QALY gained. **CONCLUSIONS:** Universal pediatric PCV13 vaccination in Malaysia was estimated to reduce the burden of pneumococcal diseases and is expected to be cost-effective compared with both no vaccination and PCV10.

PIN70

COST-EFFECTIVENESS OF AN INDIVIDUALIZED APPROACH IN THE TREATMENT OF HBEAG-NEGATIVE CHB PATIENTS WITH PEGINTERFERON ALFA-2A IN ITALY

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OBJECTIVES: Pharmacological approaches available in chronic hepatitis B (CHB) are based on 48-weeks finite course of peg-interferon (PEG) or continuous administration of nucleoside analogues. Recent studies gave way to early identification of responders to PEG with a stopping rule based on virologic and serologic markers at week 12. Objective of this study is the cost-effectiveness analysis of HBeAg-negative CHB treatment with PEG with stopping rule and switch to current most effective analogues, entecavir (ETV) or tenofovir (TDF) in Italy. **METHODS:** A Markov model was developed in the states: CHB, virologic response, relapse, HBsAg clearance, compensated and decompensated cirrhosis, hepatocarcinoma, liver transplant, post-liver transplant and death. A systematic review of the clinical and economic literature was performed to find appropriate information. The simulated strategies were: 1) No treatment; 2) PEG first-line followed by switch to ETV/TDF for patients either meeting w-12 stopping rule or not responding/relapsing after the complete course; 3) First-line ETV/TDF in CHB before progression to compensated cirrhosis (CC); 4) ETV/TDF treatment delayed until CC. ETV and TDF were considered alternatively for a total of 8 strategies. Outcomes were quality-adjusted life years (QALY) and costs, calculated from the Italian NHS perspective. **RESULTS:** The strategies provided 10.4, 15.3, 15.0, 12.0 QALYs, for no-treatment, PEG+ETV/TDF, ETV/TDF-in-CHB and ETV/TDF-in-CC. No meaningful difference in outcomes was found when ETV or TDF were considered. The average per-patient lifetime cost was €27,090, €59,270, €69,050, €33,520 with no-treatment, PEG+TDF, TDF-in-CHB and TDF-in-CC. Costs using ETV were 19%-48% higher. PEG+TDF was dominant with respect to TDF-in-CHB and with an ICER of €6,590/QALY and € 7,750/QALY when compared to no-treatment and TDF-in-CC. **CONCLUSIONS:** Non treatment or treatment delayed until cirrhosis yielded the poorest outcomes. The strategy of a PEG first-line with the stopping rule showed a convenient cost-effectiveness profile, providing the optimal trade-off between clinical efficacy and costs.

PIN71

THE POTENTIAL PUBLIC HEALTH BENEFIT OF PNEUMOCOCCAL CONJUGATE VACCINES IN KAZAKHSTAN

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OBJECTIVES: To evaluate cost–effectiveness of pneumococcal vaccination with 10-valent pneumococcal non-typeable *Haemophilus influenzae* protein-D conjugate vaccine (PHiD-CV) compared with 13-valent pneumococcal conjugate vaccine (PCV-13) and no vaccination in Kazakhstan. **METHODS:** A steady state model with a one-year time horizon was developed to project the impact of vaccination on the incidence of pneumococcal and non-typeable *Haemophilus influenzae* infections in children aged 0-10 years. Disease incidence rates for meningitis, bacteremia, pneumonia and acute otitis media (AOM) were based on data from the Ministry of Health, benchmarked with other countries and validated by a group of local experts. Pneumococcal serotypes distribution is based on 4,752 samples reported by GAVI for Asian region. Serotypes coverage rates of 65.67% and 69.5% for PHiD-CV and PCV-13, payer perspective, 3+1 schedule, no herd protection were assumed. **RESULTS:** PHiD-CV and PCV-13 are projected to prevent more cases of invasive disease (278; 294 respectively), and pneumonia hospitalizations (12270; 12270 respectively) compared to no vaccination. PHiD-CV and PCV-13 are projected to prevent additional myringotomies (1920; 949 respectively) and GP visits due to AOM (70,057; 34,639 respectively) compared to no vaccination strategy. No difference in absolute number of death was projected when PHiD-CV is compared with PCV-13. Vaccinating a birth cohort with PHiD-CV or PCV-13 is expected to generate 4,541 and 4,388, respectively, more QALYs compared to no vaccination. At vaccine steady state PHiD-CV is projected to generate KZT 1.2M in direct medical cost-savings compared with PCV-13. Sensitivity analyses indicate that incidence rate of meningitis and bacteremia are the most sensitive parameters in the model. **CONCLUSIONS:** Pneumococcal conjugate vaccines would be cost effective interventions for Kazakhstan. However, PHiD-CV dominates PCV-13 because it has a larger potential QALY gain and higher cost offset related to the additional benefits due to AOM reduction.

PIN72

COST-EFFECTIVENESS ANALYSIS OF PALIVIZUMAB WITH RISK FACTORS FOR RESPIRATORY SYNCYTIAL VIRUS PREVENTION

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OBJECTIVES: To evaluate the cost-effectiveness of palivizumab as respiratory syncytial virus prophylaxis in preterm infants born at 35 weeks' gestation or earlier, and to determine how the cost-effectiveness of prophylaxis differs among subgroups according to risk factors for RSV-related hospitalization. **METHODS:** A decision analytic model was designed to assess the cost-effectiveness of prophylaxis with palivizumab for preterm infants born at ≤ 35 weeks' gestational age and ≤ 6 months of age compared with no prophylaxis. And by using this model, subgroup analyses were conducted to evaluate cost-effectiveness for children with different risk factors related to RSV hospitalization (gestational age, age at the start of the RSV season, with chronic lung disease, having siblings at school, discharge through RSV season). **RESULTS:** The expected costs and QALYs for preterm infants with palivizumab prophylaxis were higher than those with no prophylaxis. The incremental cost-effectiveness ratio (ICER) for the preterm infants was 19,928,984 KRW per QALY. The cost-effectiveness of palivizumab varied among the subgroups with different risk factors. The prophylaxis with palivizumab may be cost-effective (based on a threshold of 20,000,000 KRW per QALY) for preterm infants with one or more risk factors according to the age at the start of the RSV season. The prophylaxis with palivizumab for preterm infants was cost-effective for infants under 3 months old with 1 risk factor, infants under 9 months old with 2 risk factors, and infants under 15 months old with 3 risk factors. **CONCLUSIONS:** This study found that prophylaxis with palivizumab is a cost-effective strategy for preterm children compared with no prophylaxis and has different cost-effectiveness according to the risk factors because of the influence on the risk of RSV hospitalization. Therefore, it is reasonable to recommend the use of palivizumab for preterm infants in subgroup with cost-effectiveness considering the risk factors.

PIN73

DIRECT MEDICAL COSTS AND HEALTH CARE RESOURCE USE ASSOCIATED WITH HEPATIS C INFECTION IN PORTUGAL

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OBJECTIVES: To calculate the direct medical costs associated with HCV health states by eliciting expert opinion. **METHODS:** Portuguese-specific annual direct medical costs of HCV health states were estimated based on a national expert panel with 8 clinicians experienced in HCV treatment at the national level. We adopted a two-stage modified Delphi technique: First, experts independently answered questions concerning the resource use associated with each HCV-related health state. Secondly, a consensus meeting was held where experts were encouraged to revise their earlier answers after the panel discussion. The annual cost for each health state of HCV disease was thereafter obtained by multiplying unit costs with the consensus scores for each resource use. Unitary costs were obtained through national official sources. Fibrosis (F0-F3), compensated cirrhosis (CC), decompensated cirrhosis (DC), hepatocellular carcinoma (HCC) and liver transplantation were set as the different HCV health states with relevance for clinical and economic research. **RESULTS:** Estimated annual costs per HCV health state were the following: fibrosis (F0-F3) was €580, in advanced liver disease, CC was €1,156, whereas DC was €8,222 for the first year and €9,085 for subsequent years. For HCC first year, the annual cost was €20,749, whilst €19,088 for subsequent years. For liver transplant, first year cost was €112,072, while for subsequent years it was €7,558. The considerable difference between the costs associated with the first and subsequent years is due to the transplant procedure being the cost driver for this health state. **CONCLUSIONS:** Overall Cost of illness associated with HCV infection is substantial in Portugal and increases throughout the liver disease health states. Strategies aiming to treat HCV infection have the potential to decrease the disease progression and subsequent total costs associated with HCV-related liver disease. The results from our research highlight this point and may support cost-effectiveness analysis in the evaluation of those strategies.

PIN74

COST SAVINGS DUE TO ANTIBIOTIC PRESCRIPTION RELATED TO QUICK C-REACTIVE PROTEIN TESTING

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OBJECTIVES: The excessive and often unnecessary prescription of antibiotics and the resulting increase in antibiotic resistance poses a serious medical problem. The analysis provides data for assessing a health insurance company's strategies aiming to optimize antibiotic prescribing due to a quick C-reactive protein testing. **METHODS:** Within a period of 22 months (January 2009 – October 2010), in a population sample of 365 690 insured persons from Slovakia, a connection was studied between availability of a quick C-reactive protein testing as a service furnished by medical care providers and a final cost of antibiotic treatment. A health insurance fund provided data for this analysis. **RESULTS:** Higher consumption of antibiotics can be linked to higher resistance to antibiotics. On the other hand this linkage is not linear. In the analysis, the average expenditure per 1 patient at the level of 1.12 € can be seen within GPs, where a quick C-reactive protein testing is available. On the other hand, the average expenditure per 1 patient at the level of 1.35 € can be seen within GPs, where a quick C-reactive protein testing is not available. The average expenditure per 1 pediatric patient at the level of 1.64 € can be seen within pediatric medicine, where a quick C-reactive protein testing is available. However, the average expenditure per 1 pediatric patient at the level of 2.33 € can be seen within pediatric medicine, where a quick C-reactive protein testing is not available. Based on the analysis, we can finalised that in the case of an appropriate use of C-reactive protein testing with the monitored sample of 365 690 insured persons within the above mentioned period of 22 months, financial resources in a total